Borui Zhang

✉ zhang-br21@mails.tsinghua.edu.cn
🐙 github　　G Google Scholar　　🌐 https://boruizhang.site

About Me

I am a fourth-year Ph.D. student in the i-VisionGroup at the Department of Automation, Tsinghua University, under the guidance of Professor Jiwen Lu. In 2021, I earned my BE degree from the Department of Automation and a second BA degree from the School of Economics and Management at Tsinghua University. Currently, my work is centered on explainable AI, deep learning theory, autonomous driving, and multi-modal models.

Education

2021 – · · · ·	**Ph.D. Department of Automation, Tsinghua University.**
2018 – 2021	**B.A. School of Economics and Management, Tsinghua University (second degree).**
2017 – 2021	**B.E. Department of Automation, Tsinghua University.**

Research Publications

* indicates equal contributions.

Journal Articles

1. K. Liu, **B. Zhang**, J. Lu, and H. Yan, "Towards integrity and detail with ensemble learning for salient object detection in optical remote sensing images," *IEEE Transactions on Geoscience and Remote Sensing,* 2024.

Conference Proceedings

1. Y. Huang, W. Zheng, **B. Zhang**, J. Zhou, and J. Lu, "Selfocc: Self-supervised vision-based 3d occupancy prediction," in *CVPR*, 2024, pp. 19 946–19 956.

2. **B. Zhang**, W. Zheng, J. Zhou, and J. Lu, "Path choice matters for clear attributions in path methods," in *ICLR*, 2024.

3. W. Zheng, W. Chen, Y. Huang, **B. Zhang**, Y. Duan, and J. Lu, "Occworld: Learning a 3d occupancy world model for autonomous driving," in *ECCV*, 2024.

4. **B. Zhang**, W. Zheng, J. Zhou, and J. Lu, "Bort: Towards explainable neural networks with bounded orthogonal constraint," in *ICLR*, 2023.

5. **B. Zhang**, W. Zheng, J. Zhou, and J. Lu, "Attributable visual similarity learning," in *CVPR*, 2022, pp. 7532–7541.

6. W. Zheng, Y. Huang, **B. Zhang**, J. Zhou, and J. Lu, "Dynamic metric learning with cross-level concept distillation," in *ECCV*, 2022, pp. 197–213.

7. W. Zheng*, **B. Zhang***, J. Lu, and J. Zhou, "Deep relational metric learning," in *ICCV*, 2021, pp. 12 065–12 074.

Preprints

1   **B. Zhang**, W. Zheng, J. Zhou, and J. Lu, *Preventing local pitfalls in vector quantization via optimal transport*, 2024.

2   **B. Zhang***, B. Tian*, W. Zheng, J. Zhou, and J. Lu, *Fast shapley value estimation: A unified approach*, 2023.

Honors and Awards

2024	**129 Counselor Scholarship**, important award presented by Tsinghua University for outstanding student counselors.
2023	**National Scholarship**, highest scholarship given by the government of China.
2022	**Tsinghua Outstanding Student Cadre Award**.
	Tsinghua Excellent Teaching Assistant Award.
2021	**Tsinghua Future Scholars Scholarship**, GPA: 3.81/4.0, Rank: 1/181.
2020	**Changtong Scholarship**, highest scholarship for seniors in the Dept. of Automation.
2019	**Jiang Nanxiang Scholarship**, highest scholarship for juniors in Tsinghua.
2018	**National Scholarship**, highest scholarship given by the government of China.

Miscellaneous Experience

Academic Services

Conference Reviewer	**CVPR 2024, ICME 2024, NeurIPS 2024, ACCV 2024**
	ICCV 2023, ICME 2023
	CVPR 2022, ICME 2022, VCIP 2022
Journal Reviewer	**T-IP**

Interests

Beyond my routine scientific endeavors, I have a profound love for travel, using photography to seize and immortalize the beauty of life's fleeting moments. In the interstices of my work, I find solace in classical music, with a particular fondness for Chopin's compositions, which offer a serene balm to the soul and a catalyst for my research creativity. I also keep myself physically active with badminton, table tennis, and running, and I am always on the lookout for new and engaging activities to enrich my life. Life is a continuous journey of discovery and exploration.